# UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;

Nora Mead Brownell, Joseph T. Kelliher,

and Suedeen G. Kelly.

Young Gas Storage Company, Ltd.

Docket No. CP93-541-013

#### ORDER AMENDING CERTIFICATE

(Issued March 30, 2004)

- 1. On November 3, 2003, Young Gas Storage Company, Ltd. (Young) filed an application pursuant to Section 7(c) of the Natural Gas Act (NGA) requesting a further amendment to the certificate of public convenience and necessity issued by the Commission on June 22, 1994. That certificate authorized Young to develop, construct and operate the Young Storage Field in Morgan County, Colorado, and to provide open access, Part 284 storage services for others, with pregranted abandonment authorization.
- 2. In the instant application, Young proposes to drill and connect to its storage system three additional injection/withdrawal wells, to reclassify two existing wells, to modify its protection acreage, and to undertake a storage field testing program. Young proposes this action to remedy a general degradation in the field's withdrawal capability. We find the proposed amendment to be in the public interest because it will help alleviate the decline in withdrawal capability, permit more efficient operation and utilization of Young's storage facilities, and we will grant Young's request to amend its certificate, subject to certain conditions.

# Background

3. Young is a limited partnership comprised of two general partners, Young Gas Storage Company and CIG Gas Storage Company (both subsidiaries of CIG Stock Corporation), and one limited partner, the City of Colorado Springs, Colorado. Young

<sup>&</sup>lt;sup>1</sup>Young Gas Storage Company, Ltd., 66 FERC ¶ 61,280 (1994), 67 FERC ¶ 61,375 (1994). Young's certificate has been amended on several occasions. 99 FERC ¶ 61,034 (2002); 83 FERC ¶ 62,118 (1998); 80 FERC ¶ 62,248 (1997); 76 FERC ¶ 62,157 (1996); and 73 FERC ¶ 61,037 (1995).

commenced development of the Young Storage Field in a depleted gas producing field in June 1994. Colorado Interstate Gas Company (CIG) operates Young's storage facilities, which are interconnected with CIG's interstate pipeline system. CIG will provide transportation service to and from the storage field pursuant to its blanket transportation certificate.

- 4. The Commission has issued various orders amending the June 22, 1994 certificate. The amending orders provide for, inter alia, the addition and deletion of observation wells, injection wells, reduction of protective storage field acreage, minor modifications to the storage gathering systems, and modifications to the maximum volumes of base gas and working gas. Currently, the Young storage facilities inventory includes 21 injection and withdrawal (I/W) wells, 13 observation wells, a water injection well, a salt water disposal well, 8.9 miles of 2-inch to 12-inch diameter gathering storage pipeline, one compressor station, gas processing facilities and one meter station. As certificated, the storage facility has a total capacity of approximately 10 billion cubic feet (Bcf), which consists of approximately 5.8 Bcf of working gas and approximately 4.2 Bcf of base gas. The stabilized average well-head shut-in reservoir pressure does not exceed 2,000 psig.
- 5. The majority of the reservoir pore space was believed to have been watered out when the field was converted to storage in 1995. The subsequent eight years of storage operations has produced a significant amount of formation water, effectively increasing the gas-filled pore space, which has resulted in a lower than expected reservoir pressure at any given storage inventory. Gas has expanded into areas of the field which cannot be effectively drained by the existing wells quickly enough to be beneficial to storage operations, essentially degrading the field's deliverability. The field continues to attain its maximum deliverability of 198,813 Mcf/d at 14.73 psia, but the sustainability of this rate has declined as the field is depleted throughout the withdrawal season. Until the deliverability is improved, the deliverability curves require a downward revision to reflect the field's current capabilities. This revision to the available daily withdrawal quantity (ADWQ) curve in Young's Tariff was undertaken through a tariff filing on November 12, 2003, in Docket No. RP04-54-000.

# **Proposal**

6. In the instant application, Young requests authority to increase the number of authorized I/W wells by three. Two of these wells, Horizontal Wells 45 and 43, will be drilled, tested and connected in 2004. Young requests approval to drill, test and connect the third horizontal I/W well, Young Well No. 44 in 2005. Further, Young requests approval to reclassify the Young Well Nos. 24 and 39 from their current designation of I/W wells to that of observation wells. Young states that these well additions and

reclassifications will result in a total well count in the field of 22 I/W wells, 15 observation wells, one water injection well and one salt water disposal well.

- 7. Young also requests authority to modify the protection acreage of the field. Young states that this modification will conform the boundary to reflect recent surface and mineral right acquisitions. Young points out that all proposed drilling and reclassification of well designations are fully within the current protection acreage.
- 8. Finally, Young requests approval for a testing program to be undertaken as the new I/W wells are drilled and connected, to determine if the field is capable of increased withdrawals above the currently certificated limit of 198,813 Mcf/d. Should this testing confirm additional withdrawal capability, Young states that it will seek Commission approval to increase the withdrawal capacity of the storage project.

## **Notice and Interventions**

9. Public notice of Young's application was published in the Federal Register on December 11, 2003, 68 Fed. Reg. 69079, with comments, protests, and interventions due on or before December 29, 2003. On February 23, 2004, the United States Department of the Interior, Fish and Wildlife Service, and the Mescalero Apache Tribal Historic Preservation Office filed comments in response to the application.

#### **Discussion**

10. Young proposes to amend its certificate to drill and operate three new I/W horizontal wells, reclassify two existing I/W wells as observation wells, modify the protective acreage, and perform field testing to determine the feasibility of enhancing the storage field's operational capabilities. Commission staff performed a detailed analysis of the application and data responses and has determined that the proposed certificate modifications will result in the storage field being more efficiently operated, and help restore the field's withdrawal capability.

## **Injection/Withdrawal Wells**

11. Refined geological analysis has shown the storage field to be composed of three distinct and separate channel sands, D-1, D-2, and D-3. The D-2 sand is considered the main reservoir sand where the majority of gas is stored. Two of the new I/W wells (Young Well Nos. 43 and 45) will be completed in the D-2 sand, and should enhance the deliverability in the northern and southern portions of the field. Tests of the Young Well No. 41 confirmed that gas is expanding into the northern portion of the field. The proposed Young Well No. 45 will allow more efficient access to this gas. The proposed

Young Well No. 43 will more effectively drain the southern portion of the field. The proposed Young Well No. 44 will be drilled and completed in 2005 in the D-3 sand, which currently is only accessed by two I/W wells, and will allow more reservoir access and better overall reservoir drainage. Young anticipates the new I/W wells could provide for an estimated 15 to 25 MMcf/d withdrawal rate at peak inventory, which is within the existing certificated parameters of the field.

## **Observation Wells**

12. The Commission agrees with data provided by Young which states that Young Well Nos. 24 and 39 are not suitable for I/W purposes, and have not contributed to the field's I/W capabilities. However, these two wells do provide important pressure data on the field and are thus suited to be reclassified as observation wells.

## **Protective Acreage**

13. In 1998, Young acquired an option on approximately 170 acres on the northwest side of the field, and exercised the option in 2001. Adding this acreage to the certificated boundaries of the field will protect against loss of storage gas that may migrate north. Young has been approached by a landowner to acquire 240 acres on the eastern side of the field that contains reservoir rock unsuitable for storage. The Commission agrees with Young that acquisition of this property would be useful in protecting the integrity of the field by providing a buffer to gas migration or field expansion.

# **Well and Field Testing**

- 14. Based on historic evidence, test wells, studies, and modeling, Young believes the storage field is capable of higher levels of withdrawals than currently authorized. To confirm this, Young proposes to test the field using existing and the proposed new wells. After completion, each of the three new wells will be tested to determine the individual potential of each well. The new wells are not intended to enable Young to exceed the existing certificated design of the field, but rather to access areas of the field that are not being efficiently drained, which has caused lower than expected late season deliverability.
- 15. After the completion and well testing of Young Well Nos. 43 and 45, the field will be tested three times, when the field working inventory is near 80%, 60%, and 40% of the working capacity. Young states that each field test will not exceed 72 hours in duration and will be conducted within the established pressure limits and safety levels for the storage reservoir and surface facilities. The results of the tests will be modeled to evaluate the capabilities of the field at scenarios of various inventory levels, reservoir

pressures, and gathering system flowing pressures. Young will determine whether increased withdrawal capability exists and whether any modifications to its certificate and/or tariff may be necessary to accommodate the potentially enhanced capabilities. The Commission will require Young to file summaries of the tests, including the technical results of the three field tests and the individual well tests of existing and proposed wells.

## **Benefits of the Project**

- 16. Young's proposal is subject to the Commission's jurisdiction and the requirements of subsections (c) and (e) of Section 7 of the NGA. The proposed I/W wells will be constructed to allow Young to operate more effectively and efficiently according to the original design withdrawal capability of the field. The cost of Young's project is estimated at \$3,240,528. Because of the improved system reliability and flexibility, and the improved daily and seasonal deliverability, the project will provide substantial system benefits and the costs associated with these wells are appropriate for rolled-in pricing. The project should remedy the general degradation in the field's deliverability, and allow more efficient storage operations. Young's existing customers will suffer no adverse impacts but rather will experience an enhancement of the quality of their service. No other pipelines or their respective customers will be affected and there are no expected adverse economic impacts on landowners as no condemnation is anticipated.
- 17. The Commission finds that Young's proposal will provide substantial benefits, can proceed without subsidies, and will not adversely affect or degrade service to existing shippers. We find that the benefits of the project outweigh any potential adverse impacts. Accordingly, we conclude that Young's proposed project is required by the public convenience and necessity.

## **Environment**

18. On January 23, 2004, the Commission issued a Notice to Prepare an Environmental Assessment for the Young Storage Project and Request for Comments on Environmental Issues (NOI). The Commission received responses to the NOI from the Mescalero Apache Tribal Historic Preservation Office and the U.S. Department of the Interior Fish and Wildlife Service. Commission staff prepared an environmental assessment (EA) for Young's proposal addressing all substantive comments. The EA also addresses soils, water resources, vegetation, wildlife, threatened and endangered species, cultural resources, land use, and alternatives.

- 19. Based on the discussion in the EA, we conclude that if constructed and operated in accordance with Young's application, approval of this proposal would not constitute a major Federal action significantly affecting the quality of the human environment.
- 20. Any State or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that State and local agencies, through application of State or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.<sup>2</sup> Young shall notify the Commission's environmental staff by telephone or facsimile of any environmental noncompliance identified by other Federal, State, or local agencies on the same day that such agency notifies Young. Young shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.
- 21. At a hearing held on March 24, 2004, the Commission on its own motion received and made a part of the record in this proceeding all filed evidence, including the application and the supplements and exhibits thereto, and upon consideration of the record,

#### The Commission orders:

- (A) The certificate of public convenience and necessity issued to Young in this docket is further amended as described and conditioned herein.
- (B) The certificate authority in Ordering Paragraph (A) shall be conditioned on the following:
  - (1) Young's completion of the proposed facilities and making them available for service within eighteen months of the issuance of this order pursuant to paragraph (b) of Section 157.20 of the Commission's regulations;
  - (2) Young's compliance with all applicable Commission regulations under the NGA, including paragraphs (a), (c), (e), and (f) of Section 157.20 of the Commission's regulations;

<sup>&</sup>lt;sup>2</sup>See, e.g., Schneidewind v. ANR Pipeline Co., 485 U.S. 293 (1988); National Fuel Gas Supply v. Public Service Commission, 894 F.2d 571 (2d Cir. 1990); and Iroquois Gas Transmission System, L.P., et al., 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

- (3) Young's compliance with the environmental conditions listed in the appendix to this order.
- (C) Young shall notify the Commission's environmental staff by telephone and/or facsimile of any environmental noncompliance identified by other Federal, State, or local agencies on the same day that such agency notifies Young. Young shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.
- (D) Within 30 days of the conclusion of field testing, Young shall file with the Commission the summary of the tests, including the technical results of the three field tests and the individual well tests of existing and proposed wells that have been drilled, and Young's conclusions about the effects on the field's performance capabilities.

By the Commission.

(SEAL)

Linda Mitry, Acting Secretary.

## Appendix Young Gas Storage Company, Ltd. Docket No. CP93-541-013

As recommended in the EA, this authorization includes the following conditions:

- 1. Young shall follow the construction procedures and mitigation measures described in its application and as identified in the environmental assessment (EA), unless modified by this Order. Young must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
  - b. justify each modification relative to site-specific conditions:
  - explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) before using that modification.
- 2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
  - a. The modification of conditions of this Order; and
  - b. The design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from the project construction and operation.
- 3. **Prior to any construction**, Young shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of the environmental mitigation measures

- appropriate to their jobs **before** becoming involved with construction and restoration activities.
- 4. The authorized facility location shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction,** Young shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for the facility approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.
- 5. Young shall **not begin** construction activities **until**:
  - a. the staff receives comments from the U.S. Department of Interior Fish and Wildlife Service (FWS) regarding the proposed action at Young Well Nos. 44 and 45 and related pipeline and access road construction to these wells;
  - b. the staff completes formal consultation with the FWS, if required; and
  - c. Young has received written notification from the Director of the Office of Energy Projects (OEP) that construction or use of mitigation may begin.
- 6. Young shall **defer** construction and use of facilities and staging, storage, and temporary work areas and new or to be improved access roads **until** Young files with the Secretary cultural resource reports, as appropriate, and the state historic preservation officer's comments and the Director of OEP reviews and approves all reports and notifies Young in writing that it may proceed.

**Note**: For additional information see OEP's "Guidelines for Reporting on Cultural Resource Investigations" (December, 2002).

All material filed with the Commission containing **location**, **character**, **and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: "CONTAINS **PRIVILEGED INFORMATION--DO NOT RELEASE.**"